

CIGARETTE TAX

Revenue Description

Section 16-11-111, MCA, specifies a tax of 70 cents on each pack of 20 cigarettes. If a pack contains more than twenty cigarettes, the tax is pro-rated by 1/20th of the 70-cent tax for each cigarette exceeding 20 cigarettes.

Historical and Projected Revenue

Table 1 shows historical and projected total and general fund collections from cigarette tax revenues, after tribal revenue sharing payments, for FY 1994 to FY 2007.

Table 1 Cigarette Tax - General Fund Revenue (\$ millions)				
Fiscal Year	Total Collections	General Fund (adjusted)	Percent Change	
A 1994	\$12.496	\$0.000	N/A	
A 1995	\$13.115	\$0.000	N/A	
A 1996	\$12.969	\$0.000	N/A	
A 1997	\$13.287	\$0.000	N/A	
A 1998	\$13.245	\$9.544	N/A	
A 1999	\$12.265	\$8.823	-7.56%	
A 2000	\$11.766	\$8.418	-4.59%	
A 2001	\$11.628	\$8.285	-1.58%	
A 2002	\$11.052	\$7.887	-4.80%	
A 2003	\$16.093	\$12.576	59.46%	
A 2004	\$41.583	\$36.002	186.27%	
F 2005	\$40.287	\$34.467	-4.26%	
F 2006	\$39.193	\$33.199	-3.68%	
F 2007	\$38.182	\$32.346	-2.57%	

Cigarette Tax Collections

Fiscal Year	General Fund Revenue (\$ millions)	Total Collections (\$ millions)
1994	0	12.496
1995	0	13.115
1996	0	12.969
1997	0	13.287
1998	9.544	13.245
1999	8.823	12.265
2000	8.418	11.766
2001	8.285	11.628
2002	7.887	11.052
2003	12.576	16.093
2004	36.002	41.583
2005	34.467	40.287
2006	33.199	39.193
2007	32.346	38.182

Prior to FY 1998, cigarette taxes were not allocated to the general fund. HB 166, (1997 session) distributed cigarette tax revenues, after tribal revenue sharing payments, 73.04% to the general fund; 15.85% to the Long-Range Building Program account; and 11.11% to the Department of Public Health and Human Services, as provided for in 16-11-119, MCA.

Beginning May 1, 2003, SB 407 (2003 session) increased the tax on cigarettes from \$0.18 to \$0.70 per pack. SB 407 also changed the distribution of cigarette taxes, effectively increasing the general fund portion from 73.04% of tax collections to 87.40%. Under SB 407, the Long-Range Building Program account receives 4.3% of cigarette tax revenue and the Department of Public Health and Human Services receives the greater of 8.3% or \$2.0 million. The tax increase under SB 407 explains the overall increase in cigarette tax revenue in FY 2003 and beyond. The tax increase, along with the change in distribution, explains the increase to general fund revenue in FY 2003 and subsequent years.

The forecast projects general fund revenue to decrease 4.26% in FY 2005, 3.68% in FY 2006, and 2.57% in FY 2007.

Forecast Methodology and Projection Calculation

The variables used in estimating cigarette tax revenues include: 1) Montana adult population; 2) per capita cigarette tax revenue; 3) estimated packs of cigarettes taxed, including the change in demand attributable to the increase in the tax rate; and 4) the Blackfeet, Fort Belknap, and Fort Peck tribal revenue sharing agreement payments.

For purposes of projecting the demand for packs of cigarettes, the analysis assumes that the tax increase of \$0.52 per pack will increase the price per pack of cigarettes by the same amount. For purposes of projecting demand, the price per pack of cigarettes prior to the tax increase was \$3.21 and now is estimated at \$3.73 (\$3.21 + \$0.52).

Population Growth

Table 2 shows the projected adult population, and percent change (growth) for FY 2005 through FY 2007.

Table 2 Projected Adult Population		
<u>Fiscal Year</u>	<u>Adult Population¹</u>	<u>% Change</u>
A 2004	753,037	
F 2005	757,695	0.62%
F 2006	761,921	0.56%
F 2007	765,965	0.53%

¹ Source: Global Insight, Inc. Forecast of MT Population Age 15 and Over.

Cigarette Price Elasticity

Price elasticity is the consumption change response to a price change. Historic price elasticity for cigarettes and tobacco products has ranged between -0.40 and -0.55. A price elasticity of -0.40 means that a 10% increase in price will reduce demand or consumption by 4%.

For this analysis, a price elasticity of -0.44 is used in the consumption model to predict the impact of the \$0.52 tax increase on cigarette consumption. A price elasticity of -0.44 in the model means that a 16.2% price increase in cigarettes will decrease consumption by 7.13%¹, or approximately 0.14% for every one cent increase in price.

¹ (The additional tax of \$0.52 ÷ the base price of \$3.21 = 16.2% x price elasticity of -0.44 = -7.13%)

Historic Per Capita Cigarette Tax Collections

Table 3 shows actual per capita cigarette tax collections. Per capita tax collections are total tax collections divided by the adult population. Actual per capita consumption has declined since FY 1995. However, with the tax increase of 289% in May of FY 2003, per capita tax collections increased 44.4% in FY 2003 and 156.6% in FY 2004.

From FY 1995 to FY 2002 per capita collections declined from \$19.03 to \$14.91, an overall decrease of 21.3%, or an average annual decrease of 3.43%.

Table 3 Actual Per Capita Cigarette Tax Collections Fiscal Years 1994 through 2004					
Fiscal Year	Collections	Adult Population	% Change	Per Capita Collections	% Change
A 1995	\$ 13,114,640	689,259	1.73%	\$19.03	3.17%
A 1996	\$ 12,969,137	696,457	1.04%	\$18.62	-2.13%
A 1997	\$ 13,287,000	701,376	0.71%	\$18.94	1.73%
A 1998	\$ 13,245,000	707,240	0.84%	\$18.73	-1.14%
A 1999	\$ 12,265,347	714,269	0.99%	\$17.17	-8.31%
A 2000	\$ 11,766,271	724,323	1.41%	\$16.24	-5.40%
A 2001	\$ 11,628,458	733,465	1.26%	\$15.85	-2.40%
A 2002	\$ 11,052,174	741,490	1.09%	\$14.91	-5.98%
Ave. Annual Per Capita Change 1995 - 2002					-3.43%
A 2003	\$ 16,093,023	747,936	0.87%	\$21.52	44.35%
A 2004	\$ 41,582,823	753,037	0.68%	\$55.22	156.64%

Projected Per Capita Tax Growth – Without SB 407

Assuming SB 407 had *not* affected cigarette tax revenue, continuing the trend in per capita collections forward creates a baseline for applying the cigarette price elasticity, and estimating future revenue.

Table 4 shows the projected per capita trend for FY 2005 through FY 2007 without considering the impact of SB 407. The historical average annual decrease of 3.43% is used to project FY 2005 per capita collections. The forecast assumes that the decrease in per capita collections will level slightly from the historical annual average, and are projected at 95% of the prior year growth. The per capita growth rate is -3.26% in FY 2006 and -3.09% in FY 2007.

Table 4 Projected Per Capita Tax Growth Without SB 407 Fiscal Years 2005 to 2007					
Fiscal Year	Baseline Growth Rate	Adjustment Factor	Per Capita Growth Rate		
F 2005	-3.43%	x	0.00	=	-3.43%
F 2006	-3.43%	x	0.95	=	-3.26%
F 2007	-3.26%	x	0.95	=	-3.09%

It is estimated that approximately 64.39 million packs of cigarettes would have been taxed in FY 2004 if the price per pack had remained at \$3.21, the price prior to tax increase.² As shown in Table 5, the combined impacts of population growth and the decrease in per capita consumption is an overall decrease of 2.83% ((100.62% x 96.57%)-1) in FY 2005, and a decrease of 2.72% in FY 2006 and 2.58% in FY 2007. The right-hand side of Table 5 shows that applying the combined rate of change each year makes the estimate of cigarette packs before the tax increase 62.57 million in FY 2005, 60.87 million in FY 2006, and 59.30 million in FY 2007.

Table 5					
Projected Growth - Cigarette Consumption					
Fiscal Years 2005 - 2007					
Fiscal Year	Population Growth	Per Capita Consumption	Combined Growth	Packs (millions)	
				Prior to Tax Increase	Percent Change
F 2004				64.39	
F 2005	0.62%	-3.43%	-2.83%	62.57	-2.83%
F 2006	0.56%	-3.26%	-2.72%	60.87	-2.72%
F 2007	0.53%	-3.09%	-2.58%	59.30	-2.58%

Projected Per Capita Tax Collections – With SB 407

The number of taxed cigarette packs with SB 407 is forecast by adjusting the number of packs that would have been taxed without any change in the price per pack by the estimated change in consumption of -7.13% due to the tax increase. Table 6 shows that with the estimated change in consumption, packs of cigarette are forecast at 58.11 million in FY 2005, 56.53 million in FY 2006, and 55.07 million in FY 2007.

Table 6			
Estimated Cigarette Consumption			
Fiscal Years 2004 through 2007			
Fiscal Year	Packs (Millions)		After Tax Increase
	Prior to Tax Increase	% Change Packs	
F 2005	62.57	-7.13%	58.11
F 2006	60.87	-7.13%	56.53
F 2007	59.30	-7.13%	55.07

² This is the estimated number of FY 2004 cigarette packs sold adjusted by the cigarette price elasticity.

Wholesaler Discounts

The excise tax on cigarettes is imposed on retail consumers, but is collected by wholesale or retail vendors. Wholesalers that purchase insignias from the state are allowed a discount to defray the cost of affixing the insignia, and the cost of pre-collecting and remitting the tax to the state. The discount is 1.66% for the first 2,580 cartons per month, 1.11% for the next 2,580 cartons per month, and 0.083% for purchases over 5,160 cartons per month.

Based on FY 2004 information, it is estimated that wholesaler discounts are approximately 0.956% of total collections each year. This is \$388,727 for FY 2005, \$378,167 for FY 2006, and \$368,413 for FY 2007.

Tribal Revenue Sharing Agreements

There are three types of arrangements for cigarette taxes with the seven reservations in Montana:

- 1) The Northern Cheyenne, Rocky Boy, and Crow Reservations have a tax-free quota agreement with the state.
- 2) The Flathead Reservation abides by the tax-free quota law with no specific agreement with the state.
- 3) The Blackfeet, Fort Belknap, and Fort Peck Reservations have a revenue sharing agreement with the state.

Wholesalers receive a refund for taxes pre-collected on cigarettes sold to tribal members on an Indian reservation that utilize the tax-free quota system.

Under the revenue sharing agreements, tribal revenue payments are calculated by multiplying the number of tribal members living within the boundaries of each reservation by 150% of the per capita cigarette collection amounts in the previous fiscal year. For example, using the FY 2003 per capita amount of \$17.70 (this figure is based on total population, whereas projected growth used in this analysis uses adult population), if a reservation had a tribal population of 1,000; the calculation for calendar year 2004 would be $1,000 \times \$17.70 \times 150\%$ for a total of \$26,550.

As per capita collections increase with the tax rate change, the revenue sharing payments also increase relatively. However, since tribal payments are made on a calendar year basis, the fiscal year payments made to the tribal governments lag fiscal year collections slightly. Revenue sharing tribal payments are estimated at \$851,000 for FY 2005, \$1.208 million in FY 2006, and \$1.172 million in FY 2007.

Revenue Calculation

Table 7 shows the calculation of general fund revenue from the cigarette tax for FY 2005 through FY 2007. The calculation first estimates taxes by multiplying the estimated number of taxable cigarette packs (from Table 6) by the tax rate of \$0.70. Estimated wholesaler discounts and tribal payments are then subtracted to yield net tax collections for distribution. Last, general fund revenue is forecast by multiplying net tax collections by the general fund share.

Estimated general fund cigarette tax revenues total \$34.5 million in FY 2005, \$33.2 million in FY 2006, and \$32.3 million in FY 2007.

Table 7			
Calculation of General Fund Cigarette Tax Revenue			
Description	FY2005	FY2006	FY2007
Estimated Number of Packs	58,108,119	56,529,536	55,071,537
Multiply by Tax Rate	\$ 0.70	\$ 0.70	\$ 0.70
Estimated Taxes	\$ 40,675,683	\$ 39,570,675	\$ 38,550,076
Subtract Est. Wholesaler Discounts	388,727	378,167	368,413
Subtract Est. Tribal Payments	850,721	1,207,582	1,172,325
Net Tax Collections for Distribution	\$ 39,436,235	\$ 37,984,926	\$ 37,009,337
Multiply by General Fund Share	87.40%	87.40%	87.40%
Total to General Fund	\$ 34,467,269	\$ 33,198,825	\$ 32,346,161